

Atty. Dkt. No. 02CR350/KE

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Claims 3, 4, and 10 are requested to be cancelled without prejudice. Claims 1 and 9 are currently being amended.

After amending the claims as set forth above, claims 1-2, 5-9, and 11-20 are now pending in this application.

Rejection Based on the Casabona et al Application

In section 2 of the Office Action, Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application No. 2004/0012526 (Casabona et al app.). Applicant respectfully traverses the rejection. The Casabona et al app. does not disclose, suggest, or teach the Applicant's claimed invention as recited in Claims 1-20. Further, Applicant hereby reserves the right to swear behind Casabona et al as a prior art reference.

The Casabona et al app. and Applicant's claimed invention as recited in Claims 1-20 are very different. To clarify some of the differences between the Casabona et al app. and Applicant's claimed invention, Applicant has amended the claims and provided the comments that follow.

Claims 1-8

Independent claim 1 is amended to include the elements of two of its dependent claims, claims 3 and 4. Specifically, amended independent claim 1 recites in part:

an interference detector that measures the output of at least one of the at least two receivers, wherein the interference detector comprises a rotation tracker that provides a rotation estimate;

The Casabona et al app. does not disclose or suggest this interference detector. The Examiner points to interference detection receiver 115 in the Casabona et al app. as teaching

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Applicant's claimed "interference detector" (see Fig. 4). However, there is absolutely nothing in the Casabona et al app. that indicates that the interference detection receiver 115 includes a "rotation tracker that provides a rotation estimate" as recited in amended independent claim 1. Indeed, the interference detection receiver 115 of the Casabona et al app. is only described as producing a jam detection signal 132. (See Para. [0025].) There is no explanation as to what the jam detection signal 132 is or how it is created. Most importantly, there is no mention of a rotation tracker in the interference detection receiver 115 or any facility for providing a rotation estimate by the interference detection receiver 115.

Therefore, an anticipation rejection of claim 1 and its dependent claims 2 and 5-8 based on the Casabona et al app. cannot be properly maintained. Applicant respectfully requests withdrawal of the rejection.

Claims 9-13

Independent claim 9 is amended to include elements from claim 10, one of its dependent claims. Amended independent claim 9 recites in part:

receiving external signals at a spinning vehicle;
measuring the received external signals;
providing a rotation estimate of the rotation of the spinning vehicle;

The Casabona et al app. "implements spatial nulling when a platform is rolling, and a polarization nulling when the platform is stable or rolling at a slow rate." (Para. [0041].) Thus, unlike Applicant's claimed invention, the Casabona et al app. must "determine the roll rate of the platform" using the "control modulations." (See Para. [0042].) Indeed, the Casabona et al app. requires a "measured roll rate" to operate. (See Para. [0030].) The Casabona et al app. does not provide a rotation estimate, as recited by claim 9.

Therefore, an anticipation rejection of claim 9 and its dependent claims 11-13 based on the Casabona et al app. cannot be properly maintained. Applicant respectfully requests withdrawal of the rejection.

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Claims 14-20

Independent claim 14 recites:

a rotation tracker that obtains signals from the number of signal receivers and provides a rotation estimate;

The Examiner suggests that the Casabona et al app. teaches "a rotation tracker 25 that obtains signals from the number of signal receivers and provides a rotation estimate." (Page 3, Office Action.) Applicant respectfully disagrees. Reference number 25 in the Casabona et al app. refers to a rolling platform. The rolling platform 25 is not provided any computational abilities whatsoever. There is no disclosure or suggestion of a rotation tracker in the Casabona et al app.

As discussed above with respect to Claims 9-13, the Casabona et al app. does not disclose or teach any mechanism that provides a rotation estimate. In order to operate with a dual mode nulling technique, the Casabona et al app. must measure the roll rate to determine whether or not to implement a spatial nulling or a polarization nulling. (See Para. [0041].) Polarization nulling is used by the Casabona et al app. unless the rolling rate exceeds a certain threshold beyond which spatial nulling is used. (See Para. [0020].) A measurement rather than an estimate is needed to operate only in the spatial nulling mode.

The Casabona et al app. states: "the present invention adapts to the measured roll rate ..." (Para. [0030], emphasis added) and "... the system uses the measured rate to optimize spatial nulling performance by selecting a Step Size and Track Update Rate that provide the best performance." (Para. [0050], emphasis added.) There is no teaching or suggestion in the Casabona et al app. of using a rotation tracker or any other structure to estimate the rotation of the spinning vehicle.

Anticipation by a reference requires that each and every claim limitation be disclosed. Therefore, an anticipation rejection of claim 14 and its dependent claims 15-20 based on the Casabona et al app. cannot be properly maintained. Applicant respectfully requests withdrawal of the rejection.

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Note Regarding Amendments

Applicant notes that the claim amendments made herein only take elements from dependent claims and place them into independent claims. MPEP 706.7(a) indicates that:

Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p).

Here, the Applicant's amendments should not necessitate a new ground of rejection because the amended claim elements were already included in the rejected claims. Further, no IDS is being filed. If a new ground of rejection is presented in the next action, the rejection should not be made final.

Rejection Based on the Casabona et al Patent

In section 3 of the Office Action, Claims 1-13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,712,641 (Casabona et al patent). Applicant respectfully traverses the rejection. The Casabona et al patent fails to disclose, suggest, or teach the rotation tracker (claims 1-8) or rotation estimate (claims 9-13) required by Applicant's claimed invention as recited in Claims 1-13.

The Casabona et al patent fails to disclose, suggest, or teach any rotation tracker or rotation estimate. As discussed above, claim 1 and its dependent claims require an "interference detector having a rotation tracker" and claim 9 and its dependent claims require "providing a rotation estimate of the rotation of the spinning vehicle." The Casabona et al patent does not disclose or suggest these elements. The Casabona et al patent fails to mention the use of any spinning vehicle.

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Accordingly, the anticipation rejection of claims 1-13 based on the Casabona et al patent cannot be properly maintained. Applicant respectfully requests withdrawal of the rejection.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 18-1722. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 18-1722. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 18-1722.

Respectfully submitted,

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